

Patent Claims

1. Transparent, single- or multilayered, oriented polyolefin film comprising at least one layer, characterized in that the film comprises in at least one layer a layered silicate which has an irregular surface structure and no coating of metal oxides.
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2. Polyolefin film according to Claim 1, characterized in that the platelet-shaped layered silicate is subjected to a dry-grinding process.
3. Polyolefin film according to Claim 1 and/or 2, characterized in that the dry-grinding process is carried out in such a way that a rough surface structure is produced.
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4. Polyolefin film according to one or more of Claims 1 to 3, characterized in that the ground layered silicate is non-glossy.
5. Polyolefin film according to one or more of Claims 1 to 4, characterized in that the layered silicate is a mica, preferably muscovite, biotite, phlogopite, vermiculite or synthetic mica.
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6. Polyolefin film according to one or more of Claims 1 to 5, characterized in that the mica has optionally been ignited.
7. Polyolefin film according to one or more of Claims 1 to 6, characterized in that the mean particle size is from 1 to 10 μm , preferably from 2 to 8 μm .
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8. Polyolefin film according to one or more of Claims 1 to 7, characterized in that the layered silicate is in the base layer and/or in one interlayer and/or in one top layer.
- 5 9. Polyolefin film according to one or more of Claims 1 to 8, characterized in that layered silicate is present in the film in a concentration of from 0.1 to 1.0 g/m², preferably from 0.1 to 0.7 g/m², in particular from 0.10 to 0.30 g/m².
- 10 10. Polyolefin film according to one or more of Claims 1 to 9, characterized in that the film has a thickness of from 3 to 100 µm, preferably from 5 to 50 µm.
11. Use of one of the films according to Claims 1 to 10 for marking by means of a laser, preferably by means of a CO₂ laser or by means of an Nd:YAG laser or by means of an excimer laser.
- 15 12. Use of an oriented laser-marked film according to Claims 1 to 10 as packaging film.
13. Process for marking a film according to Claims 1 to 10 by means of a laser.
- 20 14. Process for the production of a polyolefin film according to Claim 1, characterized in that the orientation in the longitudinal direction is carried out with a longitudinal stretching ratio of from 3:1 to 9:1 and/or the orientation in the transverse direction is carried out with a transverse stretching ratio of from 4:1 to 10:1.